

## **AMENDMENTS TO THE CLAIMS**

1. (Currently Amended) An apparatus for adapting an audio signal, comprising:  
an audio usage environment information management means for collecting, describing and managing audio usage environment information related to consuming the audio signal; and  
an audio adaptation means for adapting the audio signal to the audio usage environment information, wherein the audio adaptation means adapts the audio signal by changing sound field characteristics of the audio signal based on impulse response preference information of the user, wherein the audio usage environment information includes user characteristics information, the user characteristics information includes the impulse response preference information that uses an impulse response to describe a sound field preference of the user for the audio signal, the ~~user characteristics~~~~impulse response preference~~ information further includes sampling frequency preference information, bits per sample preference information, and number of channels preference information of the impulse response, and  
wherein the impulse response preference information is provided by an element of an extensible Markup Language (XML) schema, the element including a Uniform Resource Identifier (URI) address from which data of the impulse response is obtained.

2. (Previously Presented) The apparatus as recited in claim 1, wherein the audio adaptation means transmits an adapted audio signal to a user terminal.

3. (Cancelled)

4. (Previously Presented) The apparatus as recited in claim 1, wherein the user characteristics information includes perceptual parameters preference information describing the sound field preference of the user by perceptual parameters, and the audio adaptation means adapts the audio signal and transmits the adapted audio signal to the user terminal by changing the sound field characteristics of the audio signal based on the perceptual parameters preference information.

5. (Previously Presented) The apparatus as recited in claim 4, wherein the perceptual parameters preference information includes information describing direct sound, energy of early room effect, and relative early energy at a low and high frequency.

6. (Previously Presented) The apparatus as recited in claim 4, wherein the perceptual parameters preference information includes energy of later room effect and relative early decay time.

7. (Previously Presented) The apparatus as recited in claim 4, wherein the perceptual parameters preference information includes energy of early room effect related to the direct sound and late decay time.

8. (Previously Presented) The apparatus as recited in claim 4, wherein the perceptual parameters preference information includes relative decay time at a low and high frequency and a reference distance that defines the perceptual parameters.

9. (Previously Presented) The apparatus as recited in claim 4, wherein the perceptual parameters preference information includes limitation of a low and high frequency and time limitation.

10. (Currently Amended) A method for adapting an audio signal, comprising the steps of:  
a) collecting and managing audio usage environment information related to consuming the audio signal; and

b) adapting the audio signal to the audio usage environment information,  
wherein adapting the audio signal further comprises:  
changing sound field characteristics of the audio signal based on impulse response preference information of the user,

wherein the audio usage environment information includes user characteristics information, the user characteristics information includes the impulse response preference information that uses an impulse response to describe a sound field preference of the user for the audio signal, and

wherein the ~~user characteristics-impulse response preference~~ information further includes sampling frequency preference information, bits per sample preference information, and number of channels preference information of the impulse response, and

wherein the impulse response preference information is provided by an element of an extensible Markup Language (XML) schema, the element including a Uniform Resource Identifier (URI) address from which data of the impulse response is obtained.

11. (Previously Presented) The method as recited in claim 10, wherein adapting the audio signal further comprises transmitting an adapted audio signal to a user terminal.

12. (Cancelled)

13. (Previously Presented) The method as recited in claim 10, wherein the user characteristics information includes perceptual parameters preference information describing the sound field preference of the user by perceptual parameters and, at the step b), the audio signal is adapted and transmitted to the user terminal by changing the sound field characteristics of the audio signal based on the perceptual parameters preference information.

14. (Previously Presented) The method as recited in claim 13, wherein the perceptual parameters preference information includes information describing direct sound, energy of early room effect, and relative early energy at a low and high frequency.

15. (Previously Presented) The method as recited in claim 13, wherein the perceptual parameters preference information includes energy of later room effect and relative early decay time.

16. (Previously Presented) The method as recited in claim 13, wherein the perceptual parameters preference information includes energy of early room effect related to the direct sound and late decay time.

17. (Previously Presented) The method as recited in claim 13, wherein the perceptual parameters preference information includes relative decay time at a low and high frequency and a reference distance that defines the perceptual parameters

18. (Previously Presented) The method as recited in claim 13, wherein the perceptual parameters preference information includes limitation of a low and high frequency and time limitation.